

Rajesh Kumar Srivastava (India)

Customer's perception on usage of internet banking

Abstract

Internet banking is still at infancy stage in the world. Many studies focused on usage of internet banking but many factors on non-usage were overlooked. This research was carried out to validate the conceptual model of internet banking. The causes were identified and researched through correcting the causative factors so that internet banking can be used by more people. This will help the banking operations to be more cost effective.

The research is focused on what are the customer's perceptions about internet banking and what are the drivers that drive consumers. How consumers have accepted internet banking and how to improve the usage rate were the focus of research area in this study.

Qualitative exploratory research using questionnaire was applied. 500 respondents were selected for study after initial screening. They were all bank customers.

The study revealed that education, gender, income play an important role in usage of internet banking. Not much research has been done on these areas as they were focused more on the acceptance of technology rather than on people. The research corroborated the conceptual framework stating that if skills can be upgraded there will be greater will to use internet banking by consumers. Inhibitory factors like trust, gender, education, culture, religion, security, price can have minimal effect on consumer mindset towards internet banking.

Keywords: internet banking, internet security, trust, ATM.

Introduction

The marvelous kinds of innovation in technology and hard line blend of it with information technology made a paradigm shift in the banking industry. Technology itself created its world in the globe of human beings. Advent of Internet banking happened in early 1990. This beginning of Internet Banking created a phenomenal system, Internet banking. Internet banking is a kind of systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through the Internet.

The Government of India enacted the IT Act, 2000 (Information Technology Act). This act came into effect from the 17th of October 2000. The purpose of this act, in context of banking, was to provide legal recognition to electronic transactions and other means of Electronic Commerce. The working group set by Reserve bank of India, has been working as a watchdog on the different aspect of the Internet banking. ICICI bank was the pioneer bank to use Internet banking for some of its services, in India. ICICI bank and a lot of other Indian banks use the Internet banking system to provide online banking solution.

In the current scenario Indian customers are moving towards Internet banking, slowly but steadily. Most of the big Indian banks like SBI, BOB, and BOI etc. have started providing Internet banking services.

There is a clear need to develop a better understanding of how consumers evaluate these services and develop e-loyalty. Service quality is one of the main factors determining the success/failure of electronic commerce (Santos, 2003). Automated service quality has tended to lag behind because practitioners have focused mainly on issues of usability and measurement of use (Al-Hawar, 2005). Therefore, customer perception and preferences of service quality have a significant impact on bank's success. *The main aim of this research is to find out the acceptance of internet banking among Indian consumers and how it is perceived by them. This becomes important especially when education level is only 67% in India.* A study of an Internet portal for understanding customer perception about service quality, customer satisfaction and loyalty goes a long way in figuring out how these e-services are evaluated.

As India is taking giant leaps towards globalization *Internet banking* is the sector to be studied with great interest. The question of how attitude towards elements of existing banking service might influence the consumer's decision to use internet banking has not been investigated (Devlin, 2003). As consumers get more and more educated, getting insight about modern banking, via Internet banking has evolved as primary area of concern for all leading and upcoming banks in India. This paper provides an insight analysis on this aspect. The research will assist bank administration to ascertain a better understanding of consumer perceptions of automated services in bank's products offering.

1. Literature review

The Internet, much like the ATM that came before it, is fundamentally a new distribution channel through which banks can deliver traditional banking products and services. Consumers have developed a high degree of comfort for using remote basic banking services, as demonstrated by the rapid proliferation of ATMs since their introduction 30 years ago. Initially, banks promoted their core capabilities, namely, products, channels and advice, through the Internet. Then, they entered the Internet commerce market as providers/distributors of their own products and services

The vast majority of the banks that avoided Internet banking in the beginning did so because they simply did not see the benefits of using it. Polatoglu & Kin (2001) state that the average internet banking transaction costs the institution only one twentieth of a teller transaction.

An extensive study conducted in 2001 by the Consumer Bankers Association indicates that Internet banking usage remained stagnant from 1996 to 1998, with less than 10% of the market utilizing the service. This characterizes the early adoption phase where the banking industry, in its striking transformation, has embarked on an era of 'anytime, anywhere' banking. In fact, earlier researchers (Reil et al., 2001; Long & McMellon, 2004) point out that automated service is still at its infancy stage and there is no generally accepted theoretical conceptualization of automated service quality.

Banks that had the capability of implementing such a system became the first movers and focused primarily on the technological benefits offered by such a setup in order to capture technology enthusiasts at that time. Since then, Internet banking has been able to successfully cross the chasm as a complete service within the financial services industry but not up to the mark. As mentioned above, technologies in the early market provided many single services and not complete solutions during this period. These examples demonstrate the development of a complete service that becomes widely used within a small segment of the pragmatic early majority, representing an entry into the bowling alley.

Conclusions of study undertaken for European Commission on public perceptions (September, 2003) say that lack of trust has been frequently cited to be one of the key factors that discourage customers from participating in e-commerce, while cultural differences affect the formation of trust.

Apart from trust, there are other variables which influence the usage of Internet banking. They are intention, beliefs, and subjective norms, trust in the

bank, attitude, perceived usefulness and perceived ease of use (Journal of Services Research, 2007). Demography may also affect the usage pattern of Internet Banking. It is interpreted that the female respondents are yet to get fully involved in Internet purchase (Journal of Internet Banking and Commerce, 2006). Therefore, enhancing the level of service performance acceptance is the major issue to get competitive advantages. Service quality has received much attention because of its obvious relationship with financial performance, customer satisfaction and retentions (Al-Hawari et al., 2005). Suganthi et al. (2001) conducted the review of Malaysian banking sites and revealed that all domestic banks were having a web presence. Only 4 of the ten major banks had transactional sites. The remaining sites were at informational level. There are various psychological and behavioral issues such as trust, security of Internet transactions, reluctance to change and preference for human interface which appear to impede the growth of Internet banking

Corrocher (2002) investigated the determinants of the Internet technology adoption for the provision of banking services in the Italian context and also studied the relationship between the Internet banking and the traditional banking activity, in order to understand if these two systems of financial services delivery are perceived as substitutes or complements by the banks. According to the results of the empirical analysis, banks seem to perceive Internet banking as a substitute for the existing branching structure, although there is also some evidence that banks providing innovative financial services are more inclined to adopt the innovation than traditional banks. Technology has had a remarkable influence on the growth of service delivery portions (Dabholkar & Bagozz, 2002).

Rao et al. (2003) provide a theoretical analysis of Internet banking in India and found that as compared to banks abroad, Indian banks offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. I.T. has introduced new business paradigms and is increasingly playing a significant role in improving the services in the banking industry. Internet banking is becoming more and more popular today, as is banking via digital television. Beyond doubt, a substantial part of the future of banking business lies in a banking environment that is less and less branch-based and where customers are able to access banking services remotely. The automated service quality research has been limited to relationship management rather than service quality or its acceptance by consumer. Even comprehensive definition of banking service quality is lacking

(Parasuraman et al., 2005). Only discusses automated service quality within the service that is delivered through web sites. In addition to internet banking, service quality, telephone banking and ATM service quality need to be addressed in particular service environment. Black et al. (2001) performed a qualitative study on the adoption of internet services and found out that those with the highest income with a greatest use of information technology were most likely to purchase financial services using internet channel. Education and gender were not studied in this study. Earlier studies (Barczak et al., 1997; Danniell & Strong, 1997; Lia et al., 1999; Polatoglu & Ekin, 2001; Devlin & Yeung, 2003) report factors such as convenience, flexibility, security concern, complexity, and responsiveness being associated with a higher propensity to use internet banking. In the context of the above perspective, the paper will make an attempt to analyze the evolving sphere of Internet banking and the innovations both technological and conceptual which are sweeping the financial services industry in India in the context of the changes that are taking place in this sector across the world. The regulatory and taxation issues of Internet banking present formidable problems and the paper attempts to get an insight into these two important issues.

2. Problem definition

The basic understanding of Internet banking has shown the presence of a number of desired features. Such features are broadly aimed at satisfying one or the other of the following immediate user objectives – ease of access, up-to-date content, layout, design, consistent themes, easy navigation, higher interactivity, access through multiple media, higher use of non-textual information, multiple languages and lower cost of transaction, and thrust.

The Internet banking project now wants to integrate an ethnographic approach with flexible systems methodology to focus on the communication design issues for web-portals specifically devoted to consumers. The specific research questions are: What are the major information design features for India? What are the major communication media tools to be used for banking websites in India? What are the modes employed to transcend communication and cost barriers for specific user groups? What local language solutions are to be provided and through which media? What non-textual solutions can be provided for the under-educated, untrained user? What makes Internet banking relevant for the non-served communities? What is customers' perception about Internet banking? What are the factors that result in the perception of the I-banking? How can these factors be evaluated for current banking

service? What ways and means to be followed for increasing the usage of Internet banking in India?

3. Research problem and objectives

Changes in banks' external environment, including globalization and deregulation, have made the banking sector highly competitive. Banks find it hard to compete on price, and need to look at other ways to retain customers. As customers become more sophisticated, it becomes imperative for banks to consider the use of technology to respond to their continuously changing requirements.

But current scenario in India shows that pace at which technology in Internet banking proceeds doesn't march with the customers' usage rate. Even though banks are more interested in adopting new technology to differentiate themselves in competitive market, they are not getting expected ROI. So is this the fault at the end of the technology or consumers' perception? If any, then why? If both, then why? Is it due to lack of skills or will? Update on technical skills through customer's education on net with simple software can create an interest in the customer's mind. However, interest and desire to a great extent will depend upon his education level, culture religion and gender. This may affect his perception on Internet banking.

4. Conceptual model

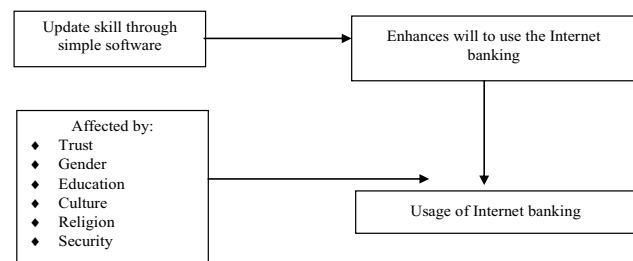


Fig. 1. The conceptual model

This research is focused on what is the consumer's perception about Internet banking. What are the drivers that drive consumer towards better perception? Bank can evaluate its Internet banking system with respect to the drivers and customers' response to these drivers.

5. Research methodology

Qualitative research method was used in the first phase. Pilot testing of questionnaire helps to get in-depth response of target group. Based on this we have used exploratory research methodology in the second phase. The working of the research was started with the questionnaire. In this we have used screening criteria to identify the target group for our research. Screening was done on the basis of three questions:

- ◆ Does their bank provide Internet banking facility?
- ◆ Does customer know how to use Internet?
- ◆ Does he have access to Internet?

The study went through the perception of the target group about the manual banking also. Opinion about manual banking by the target group helped to measure impact of manual banking transactions. Then, our study was divided into two streams: the customer, who uses Internet banking and who doesn't use it. The reason behind bifurcation of the study was to gather the parameters that can help to understand the customers' perception. These parameters helped to correlate the information between both kinds of customers. This also helped to evaluate the current satisfaction level of the customers who were using Internet banking. Evaluation of different parameters ended up with the landscape scrutiny of the areas, which are needed to be urbanized by banks. Earlier studies have mentioned that reliability, ease of use, personality, accessibility accuracy, security and efficiency could influence the Internet banking (Joseph et. al., 1999; Meuter et al., 2000; Yang & Jun, 2002; Zeithaml, 2002; Joseph & Sone, 2003; Long & McMellon, 2004). While doing the survey we focused on all the possible different demographics, e.g. age, sex, financial status, etc. The aim behind covering different demographics was to mini-

mize the errors in our survey, as we were taking the sample of population for the purpose of research. Questionnaire used Likert's five point scale to measure the opinion of different customers on different parameters. It took six months to complete the project.

6. Sampling

6.1. Target population. The first criterion to get the targeted sample was the bank customer; whose bank provides Internet banking service, who has access to Internet and who knows how to use Internet. The sample for conducting the survey contains customers from Mumbai. The study covered bank customers from different regions of Mumbai. Mumbai represents mini India and is the economic capital. While doing the survey we have taken suggestion from the bank employees, of ICICI & SBI to get more insights about the Internet banking. The survey also focused on covering all the demographic factors in the sample itself.

6.2. Sample size. Bank customers were our sample for study. We have surveyed 665 bank customers from different banks and from different locality. From these 665 we got 500 replies, which fitted in our criteria of target population. Our analysis is based on these 500 bank customers. The respondent profile who participated in the study is given in Table 1.

Table 1. Respondent profile of internet banking users and non-users

	Internet banking users N = 215	Internet banking non-users N = 285	Total N = 500	X2 test
Undergraduate	32	43	75	0.0367
Graduate	150	200	350	
Postgraduate	33	42	75	
M	118	157	275	0.0021
F	97	128	225	
Income above 2 million / year	110	165	275	2.244
Income below 2 million / year	105	120	225	
Religion				15.279
Hindu	152	225	377	
Christian	34	18	52	
Muslim	16	32	48	
Other	18	10	23	

6.3. Results and discussion. A survey of 665 respondents of different age groups and with different educational qualifications was conducted; out of these 665 respondents we had received only 500 targeted responses. This study was aimed to find out what is the consumers' perception about Internet banking. From the selected sample of 600, it was found that 57% don't use Internet banking services. The rate at which investments of banks in providing such facility is growing, mere 43% users signifies a wide gap between the investment and its returns. Education does play an important role in improving

the usage of internet banking. This research pointed out that there is a significant difference between educated users and educated non users. Academic people use more internet banking ($x^2 = 0.037$) as pointed out in Table 1. This factor was not studied by earlier researchers. This becomes important in a country where the level of education is not very high. Gender also does play an important role in acceptance of internet banking. This study revealed that males are more internet banking users compared to females ($X^2 = 0.0021$) as pointed out in Table 1. Again small research was done on the internet bank-

ing usage and the role of gender. Similarly, this study also revealed that people of higher income group are more Internet banking users ($x^2 = 2.244$). However, religion and choices of internet banking by user are independent ($x^2 = 15.28$) of each other.

This study corroborates earlier finding of Back et al. (2001) concerning those people who do not use Internet banking and believe that manual banking is more convenient. This age old habit has become so strong that even such quick and efficient mode as Internet banking has not been able to change it. The reasons are that manual banking offers human interaction and more flexibility. There is no motivation which would push them to use Internet banking services as they have a strong belief that manual banking is easy and convenient to use.

Table 2. Convenience to use the manual banking among non-users, N = 285

Answers	Counts	Percentages
Strongly disagree	25	8.62
Disagree	30	10.34
Neutral	90	30.03
Agree	100	36.21
Strongly agree	40	13.79
Total	285	100

} 50%

Table 2 shows 50% of total respondents are happy with the manual banking operation, so this comes out to be one of the strongest points for the consumers, which influences the consumers mind not to use the Internet banking. 30% were neutral. It means that this segment may opt for Internet banking if motivated to do so. The higher number of non users could be due to better service quality at manual banking. As per Santos (2003), service quality can lead to acceptance and failure of electronic commerce.

Table 3. Security factor among non-users, N = 285

Answers	Counts	Percentages
Strongly disagree	30	10.34
Disagree	35	12.07
Neutral	50	17.24
Agree	105	37.93
Strongly agree	65	22.41
Total	285	100

} 60%

As found in numerous other studies conducted (Polatoglu & Kin, 2001; Devlin & Young, 2003) ours also revealed that security forms a major concern for using Internet banking facility. As high as 60% of non-users prefer manual banking due to high level of cyber crimes like phishing, hacking, etc., while 15% of the users have faced such problems. This can be the reason why 23% of users do not prefer

Internet banking for all the transactions as given in Tables 3, 4, 5.

Table 4. Never created any security problems for users, N=215

Answers	Counts	Percentages
Strongly disagree	10	4.55
Disagree	25	11.36
Neutral	55	25.00
Agree	85	40.91
Strongly agree	40	18.18
Total	215	100

} 15%

Table 5. Trust in this service for all the transactions among users, N = 215

Answers	Counts	Percentages
Strongly disagree	10	4.55
Disagree	40	18.18
Neutral	55	25.00
Agree	90	43.18
Strongly agree	20	9.09
Total	215	100

T-test among the user and non-user was $t = 0.533$. Security is the major inhibiting factor for not using Internet banking. *This corroborates the conceptual model which says that security could be an important factor for its acceptance.* Trust is the major factor which helps to use internet banking. Users are convinced about the usage of the internet. This confidence on t test comes to $t = 0.2567$. Thus, trust is the motivating factor for usage of internet banking. *Thus, this further confirms the hypothetical model on trust as mentioned in Conceptual Model.*

Customers' evaluation of automated service options as per earlier study and their intension to use a particular option are directly affected by their perception to words they attribute associated with the option (Dabholkar, 2002). At the same time price has been incorporated as an additional factor that could influence the customers' overall perception of automated service quality (Al-Hawari, 2005).

Non-user friendliness software is another crucial issue which holds people back from using the facility. Around 32% of non-users are agreeing with the fact that the technology used in Internet banking is complicated for them. Among users, 9% believe that these services aren't easy to use while 7% say they are difficult to access. This is given in Table 6. This result confirms our critical concept on acceptability of internet banking as mentioned earlier.

Table 6. User-friendliness perceptions among non-users, N = 285

Users	Factors	Counts	Percentages
Non-users	Complicated technology	90	32
	Not easy	25	9
	Difficult accessibility	20	7
	Rigidity	15	5
	Don't get required response	35	12
	Poor feedback	40	14
	Can not say	60	21
	Total	285	100

Fees charged for using Internet banking facility also make consumers reluctant in exploiting such services. Almost 23% of consumers who don't use Internet banking feel that the charges are not reasonable. In fact 14% of users also share the same view. This shows that a little cut in these charges may induce them to use this service as given in Table 6.

In our theoretical concept we have suggested that training of consumer will help to improve the usage of internet banking. Our study confirmed that one way to shift people from non-users segment to the users segment can be educating them about the services provided. When asked, 74% of non-users responded in "yes" that they would use Internet banking services if provided with personal training and information as given in Table 7.

Table 7. Service charges aren't fair

User	Count	Total
Non-user	65 (23%)	285
User	30 (14%)	215

This tool can increase the usage of the service but can also help in erasing various myths prevailing among consumers regarding Internet banking like security related factors, its efficiency, etc. Users agreed (69.7%) that given a training users were able to use internet banking. Thus the will and skill will determine the usage of internet banking. The skill will enhance the will to use internet banking.

Conclusion

When investigating all the variables and the response by consumers, this study reveals that the perception of the consumers can be changed by awareness program, friendly usage, less charges,

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proper security, and the best response to the services offered.

The study also provides the kind of correlation between different factors. As per our basic assumptions we consider only those consumers who know how to use Internet and have an access to Internet, and our study considered only the situation wherein banks provide Internet banking services. By grouping the variables less than one relevant question may result in proper implication for the bankers.

In case of the consumers who don't use Internet banking services, having all facilities at their disposal, technology was not the biggest issue. The first thing that all bankers should concern about is the requirement of awareness. Even though these people are inclined towards the manual banking, these can be turned to potential customers, it is well proven thing, which says the surrounding influences the individual's behavior or in India only environment that surrounds the public determines the behavior and decisions of the individuals. So if consumer sees most of their colleagues or friends who surround him using Internet banking then it may influence his decision to follow Internet banking option.

Limitations

There are limitations that need to be acknowledged and addressed regarding the present study. Impact of religion can play an important role but could not be considered due to samples size of minorities. Focus is placed more on non-users as they can provide correct perception about the subject. Another limitation could be due to a limited number of financial banks covered, and people who participated in this study represented a city like Mumbai which is the financial capital of India but it can not represent a B class people's behavior though they belong to the same country. We made an attempt to get the reply from the bank employees but we were not allowed to do this. Because of this we loosed one aspect of the study.

Managerial implication

The data provided could be useful to improve the internet banking in the world. Results through this study will help to understand customer's perception and activities can be initiated to improve the usage of internet banking. This data if used can lead to reduction in cost of operation for banks as manual banking is more costly compared to internet banking.

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